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Special Session on
Electric Vehicle and Smart Grid Integration

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Call for Papers

Worldwide a massive energy is used in transportation sector with highest energy consumption growth compared to the other sectors. Population growth, together with improvements in living standard and economic growth are the main reason for this high energy consumption growth, which results in carbon dioxide emissions and energy crisis.

In many countries, policies are in place to achieve a reduced emissions target and one of the promising solution for this purpose is electrifying the transportation. Electric Vehicle (EV) is a promising candidate. Unlike the conventional internal combustion engine, EV uses electric motor and battery, which have higher efficiency and lower operating cost and does not produce carbon dioxide emissions.

However, the present EV industry has some weaknesses such as high purchase price, limited driving range and long battery recharge time up to couple of hours depending on type of chargers, and limited available charging stations. Furthermore, the interconnection of EV on the power grid has introduced some technical challenges for grid operation.

Recently, the development of smart grid concept in power grid has advanced the role of electric vehicles in the form of vehicle to grid technology. Vehicle to grid technology allows bi-directional energy exchange between electric vehicles and the electricity grid, which offers numerous services to the power grid.

Topics of interest include, but are not limited to:

The main challenges in integrating EV charging on the power grid
Results of case studies on EV-grid integration
Market for electric vehicles
The EV charging infrastructure
Applications, which are served by EV

All the instructions for paper submission are included in the conference website: <http://www.ieee-isie2018.org>